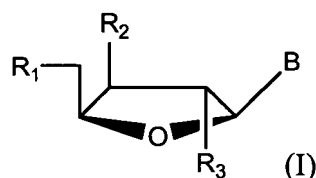


### Amendments to the Claims

The following listing of claims shall replace all prior versions, or listings of claims in this application.

### Listing of Claims:

1. (Currently Amended) A method for the preparation of 2'- or 3'-deoxy- and 2',3'-dideoxy- $\beta$ -L-pentofuranonucleoside compounds of formula I:

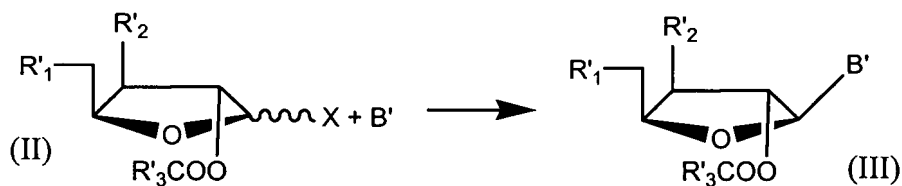


in which

- B represents purine or pyrimidine base selected from the group consisting of adeninyl, guaninyl, hypoxanthinyl, uracilyl, thyminyl, cytosinyl, 5-halo-uracilyl and 5-halo-cytosinyl;
- R<sub>1</sub> represents OH;
- R<sub>2</sub> and R<sub>3</sub> represent, independently of each other, H or OH; and
- at least one of R<sub>2</sub> and R<sub>3</sub> represents H;

~~characterized in that~~ comprising the following steps ~~are carried out:~~

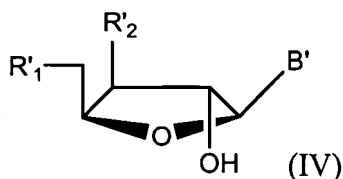
- 1) a compound of formula (II) is condensed with the base B' in order to obtain the compound of formula (III) according to the scheme



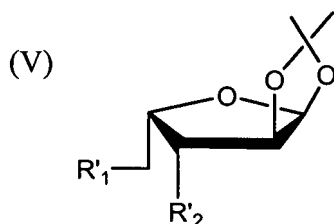
in which formulae (II) and (III):

- R'<sub>1</sub> and R'<sub>2</sub> have the meanings given for R<sub>1</sub> and R<sub>2</sub> except that when R<sub>1</sub> and R<sub>2</sub> represent OH, the OH group is protected by a protecting group selected from the group consisting of an acyl, a benzoyl, a benzyl or a silyl group,
- R'<sub>3</sub> ~~represents~~ is a C<sub>1</sub> to C<sub>5</sub> alkyl group or a phenyl radical,

- X is a leaving group ~~such as~~ selected from Cl, Br, I or a C<sub>1</sub> to C<sub>5</sub> acyloxy or alkoxy group,
  - B' is a purine or pyrimidine base B which is optionally ~~appropriately~~ protected by a protecting group selected from the group consisting of an acyl, a benzoyl, a benzyl or a silyl group,
- 2) the R'<sub>3</sub>COO group at the 2' position is removed by deacetylation so as to obtain an OH group and a compound of formula



- 3) optionally, the OH group at the 2' position is removed by a deoxygenation reaction; and
- 4) where appropriate, the R'<sub>1</sub> and R'<sub>2</sub> groups and the B' base are deprotected so as to obtain the compounds of formula (I).
2. (Currently Amended) The method according to Claim 1, ~~characterized in that wherein in the compounds (II) and (III), R'<sub>3</sub> represents~~ is a C<sub>1</sub> to C<sub>5</sub> alkyl group.
3. (Previously Presented) The method according to Claims 1 or 2, further comprising preparing the compound (II), in which X and R'<sub>3</sub>COO represent an O-acetyl group, by acetolysis of a 1,2-isopropylidene-L-xylofuranose compound of formula (V)



4. (Currently Amended) The method according to Claim 1, ~~characterized in that wherein~~ R'<sub>2</sub> and R'<sub>3</sub>COO are different.
5. (Currently Amended) The method according to Claim 1, ~~characterized in that wherein~~ the compounds of formula (I) are prepared in which R<sub>2</sub> and R<sub>3</sub> represent H or OH.
6. (Currently Amended) The method according to Claim 1, ~~characterized in that wherein the B is represents one of the adenine, guanine, hypoxanthine, uracil, thymine or cytosine bases, wherein these bases may be substituted by a halogen at the 5 position for cytosine and~~

~~uracil~~ selected from the group consisting of adeninyl, guaninyl, hypoxanthinyl, uracilyl, thyminyl, cytosinyl, 5-halo-uracilyl and 5-halo-cytosinyl.

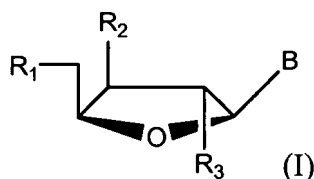
7. (Currently Amended) The method according to claim 1 for the preparation of a compound of formula (I) in which B is cytosineyl, further comprising a step wherein a compound in which B is uracilyl is converted to a compound of Formula I in which B is cytosine by converting uracilyl to cytosineyl by the process of:

i) adding acetic anhydride and pyridine;

ii) adding Lawesson's reagent and dichloroethane; and

iii) adding ammoniacal methanol.

8. (Currently Amended) A stereoisomeric  $\beta$ -L-pentofuranonucleoside compound corresponding to the following formula



in which

- ~~B represents one of the uracil, thymine or cytosine bases, wherein these bases may be substituted by a halogen at the 5 position for cytosine and uracil,~~ selected from the group consisting of adeninyl, guaninyl, hypoxanthinyl, uracilyl, thyminyl, cytosinyl, 5-halo-uracilyl and 5-halo-cytosinyl;

R<sub>1</sub> represents OH and,

- either R<sub>2</sub> represents OH and R<sub>3</sub> represents H,
- or R<sub>2</sub> represents H and R<sub>3</sub> represents OH.

9. (Currently Amended) The compound according to Claim 8, wherein B represents uracilyl, cytosineyl or 5-fluorocytosineyl.

10 - 16. (Canceled)

17. (Currently Amended) The method according to Claim 1, ~~characterized in that in the compounds (II) and (III),~~ wherein R'<sub>3</sub> represents CH<sub>3</sub>.